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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,932	10/25/2001	Rudolph Mitterholzer	D-5183	1065

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EXAMINER

MASINICK, MICHAEL D

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 06/08/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,932

Applicant(s)

MITTERHOLZER, RUDOLPH

Examiner

Michael D Masinick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 48 is/are allowed.
- 6) ☒ Claim(s) 1-47 and 54-62 is/are rejected.
- 7) ☒ Claim(s) 49-53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

General Notes

Examiner notes that in the claims of this case there are many examples of vague language. While terms such as “and/or” are allowed in claim language, it is noted that the examiner reads these claims as broadly as possible and interprets “and/or” to be taken as “or” where one of the elements may not be taught in the rejections below.

Claim Objections

1. Claims 1-62 are objected to because of the following informalities: All claims reciting a new step in a process need to begin with the next letter in the alphabet. For example, if claim 27 was re-written in independent form, there would be three step (a). Appropriate correction is required.

2. Claim 31 is noted as being dependant upon claim 20. This is confusing since there are two other independent claims between claim 20 and claim 31. Applicant is advised to ensure that this was not a typo since it would appear dependence upon claim 30 would make more numerical sense and not separate the claims. Appropriate correction or explanation is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Specifically the phrase "...of two or more components assembled to one another two or more of said components are..." is a run-on sentence and does not make sense as written.

6. Furthermore, after punctuation is added to fix the sentence above, part (A) of claim 1 is not understandable. Claims 1-19 are not further treated on the merits, however, applicant should note that the rejections or allowable subject matter indications applied to claims 39-53 would also apply to these claims once the 112 problem is overcome.

7. Claims 1-19 and 39-47 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are the means to perform the method steps (i.e. a computer). As currently claimed, Claims 1-19 and 39-47 could be performed using a pencil and paper or in the mind of a user, which is not how the invention is taught in the specification.

8. Claim 36 recites the limitation "the printed calculated relative positions". There is insufficient antecedent basis for this limitation in the claim.

9. Claims 36 and 37 are not further treated on the merits.

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10. Claim 54 recites the limitation "the two or more inspection components". There is insufficient antecedent basis for this limitation in the claim.

11. Claims 54-62 are not further treated on the merits, however, applicant should note that the rejections or allowable subject matter indications applied to claims 39-53 would also apply to these claims when the 112 problems are overcome.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 20-21, 39-42, 44, 46, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,862,377 to Reedman et al.

14. Referring to claim 20, Reedman shows a computer program for an inspection area computer processor of an inspection system, said computer program comprising: (a) a computer useable medium having computer readable program code means embodied in said medium for causing the inspection area computer processor to perform the steps of: locating within electronic data, which has a two-dimensional image of a fully or partially assembled device encoded within it, predetermined locating features of two or more inspection components of the device (Col 1,

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linrd 49-58); calculating relative positions and/or orientations of the two or more inspection components of the device (Col 1, lines 49-58).

15. Referring to claim 21, Reedman shows wherein: (a) said computer program further causes the inspection area computer processor to perform the step of: calculating one or more position errors and/or orientation errors between the inspection components of the device by subtracting from the calculated relative positions and/or orientations of the inspection components preferred relative positions and/or orientations of the inspection components (Col 1, lines 55-58).

16. Regarding claim 46, Reedman show a rework area computer processor that is located adjacent a rework area, which is distant from said inspection area, and to which said inspection area computer processor is communicatively linked; and (b) one or both of a rework area computer display screen and a rework area computer printer communicatively linked to said rework area computer processor.

17. Examiner notes that while Reedman does not specifically mention a "rework" area, an additional inspection station could easily be added to the assembly line of Reedman which provides the same functionality as the current station.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 22, 25, 26, 28, 29, 35, 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,862,377 to Reedman et al in view of U.S. Patent No. 4,941,106 to Kreiger.

20. Reedman shows a computer program to calculate relative positions, but does not show that these can be displayed on a computer display screen linked from the computer processor.

21. It is inherent to computer systems to have a monitor in order for humans to view the output from the computer in a way that they can understand. However, not all industrial computers have such a monitor and the Reedman patent, while inherently having a monitor, does not specifically show or mention this feature.

22. Krieger shows a pattern matching and orientation similar to the Reedman. Krieger shows a camera output to a monitor as well as a CAD system with a computer display monitor, which receives information from the camera system.

23. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the computer display monitors of Krieger to display the error messages and information of Reedman because the ability to monitor output is essential to any computer system.

24. Referring to claim 26 and 29, it is an object of any assembly line to proceed with the application as quickly as possible. While it is not explicitly stated in Reedman that this process happens multiple times per minute, it would certainly be an obvious advantage to anyone skilled in the art.

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25. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,862,377 to Reedman et al in view of U.S. Patent No. 4,389,669 to Epstein et al.

26. Referring to claim 31 and 32, Reedman does not show causing a computer printer, which is communicatively linked to the inspection area computer processor, to print the calculated relative positions and/or the calculated relative orientations of the inspection components or to print a unique identifier for the device in a manner such that the printed unique identifier is associated with the noted error.

27. Epstein shows a video inspection system similar to Reedman where a printer is communicatively linked to the inspection area computer processor, to print the calculated relative positions and/or the calculated relative orientations of the inspection components and to print a unique identifier for the device in a manner such that the printed unique identifier is associated with the noted error (Abstract).

28. It would have been obvious to one of ordinary skill in the art to use a printer such as the printer in Epstein to print the calculated positions because providing a hard copy of data allows for direct human interaction and long-term storage.

29. Claims 33, 36, 37, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,862,377 to Reedman et al in view of U.S. Patent No. 4,389,669 to Epstein et al as shown above and further in view of U.S. Patent No. 4,827,423 to Beasley et al.

30. Reedman in view of Epstein as shown above does not show a bar code reader which can output a unique identifier which can be stored in memory or used to in the printing as shown above.

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31. Beasley shows a computer intergrated manufacturing system with an inspection station equipped with a bar code reader. It is well known that bar code readers output a unique identifier, as this is the entire purpose of the bar code reader.

32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the bar code reader of Beasley in the inspection system of Reedman in view of Epstein because Bar codes can be used to quickly identify products and to minimize human error in both recognition of products and the entering of product data.

Allowable Subject Matter

33. Claim 48 is allowed. Claims 49-53 are allowable, but remain objected to based upon the claim lettering as stated above.

34. Claims 23, 24, 27, 30, 34, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

35. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and to the state of the art at the time of invention.

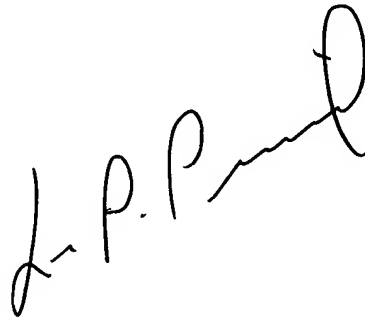
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael D Masinick whose telephone number is (703) 305-7738. The examiner can normally be reached on Mon-Fri, 7:30-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MDM

A handwritten signature in black ink, appearing to read 'L. P. Picard', written in a cursive style.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100